

Remarks

Applicant respectfully requests reconsideration of this application. No amendments have been made to the claims. None of the claims have been allowed.

Information Disclosure Statement

Applicant wishes to disclose the status of other applications that may be considered related to the present application, as follows: serial no.: 10/315,624 (Office Action rejecting all pending claims mailed 04/09/09); serial no.: 10/315,694 (issued as US 7,493,078; 02/19/09); serial no.: 10/367,178 (Final Office Action rejecting all pending claims mailed 12/18/08); serial no.: 10/889,326 (Office Action rejecting all pending claims mailed 02/04/09); serial no.: 10/618,931 (Final Office Action rejecting all pending claims mailed 02/18/09); serial no.: 10/367,197 (Final Office Action rejecting all pending claims mailed 12/11/08); serial no.: 10/315,788 (Notice of Allowance mailed 05/15/09); serial no.: 10/395,749 (Office Action rejecting all pending claims mailed 07/16/08); serial no.: 10/407,445 (Notice of Allowance mailed 06/04/09); serial no.: 11/800,543 (issued as US 7,741,665; 05/05/07); and serial no.: 10/435,005 (issued as US 7,215,660; 05/08/07).

Traversal of Claim Rejections Under 35 U.S.C. § 103(a)

Claims 45-69 stand rejected under 35 U.S.C. § 103(a) as being unpatentable Lau et al. (US 6,690,657; "Lau") in view of Oura (US 6,115,369; "Oura"). Applicant respectfully traverses this ground of rejection.

Lau, as discussed in Applicant's previous responses, teaches the user of low-power transceivers in channel-shifting RF repeaters to create a wireless network that can extend beyond each transceiver's useful range. A base station controls the allocation of time on one or more available channels between competing transmitters, and may also control the function of the channel-shifting repeaters. When a given

transmitter is transmitting, repeaters in range of that transmitter receive the signal, channel-shift the signal, and retransmit it. (Column 4, lines 6-19)

Lau does not teach a repeater of a wireless network having first and second transceivers connected via a wired link, the first transceiver wirelessly receiving each packet from a source device on the first frequency channel only during an odd time interval of a sequence of intervals, the second transceiver wirelessly transmitting each packet on the first frequency channel at a data rate of 11Mbps or greater during an even time interval, the second transceiver not transmitting during the odd time intervals, as recited, for example, in amended claim 50. Lau certainly does not teach wirelessly receiving data and transmitting that data on the same frequency channel. Rather, Lau teaches a network 58 wherein repeaters 68 and 78 receive transmissions on a first channel (CH1) and repeats or re-transmits on a different channel (CH2). This understanding is consistent with his description on col. 5, lines 39-46, wherein Lau states:

"In FIG. 4, T/R module 62 transmits on CH1. Repeaters 68 and 78 retransmit T/R module 62's signal on CH2 to the other TR modules. Note that T/R module 64 is in a range to receive both the original signal on CH1 and the repeated signal on CH2 from repeater 68. If so equipped, module 64 may select the signal it considers the strongest, or possibly even combine the signals at some point in demodulation. The other T/R modules receive on CH2."

It is worth noting that Lau discloses that his repeaters are receiving and transmitting *simultaneously*, which is contrary to the language of the subject claims. According to the claimed invention, a data packet received by the first transceiver during a first (odd) time interval is re-transmitted during a second (even) interval by the second transceiver. Thus, Lau fails to teach the elements and limitations of the subject claims, as amended.

Oura teaches a portable telephone mobile communication system in which a Time Division Multiple Access-Time Division Duplex (TDMA-TDD) communication

method is used for transmitting and receiving between base stations and mobile stations. TDMA is a technology for delivering digital wireless service using time-division multiplexing (TDM). TDMA is a well-known audio communication technique that works by dividing a radio frequency into time slots and then allocating slots to multiple calls. In this way, a single frequency can support multiple, simultaneous data channels. TDMA, for example, is used by the Global Systems for Mobile (GSM) digital cellular telephone system. TDMA technology basically shares a communications channel among several phone calls. TDD is commonly used with TDMA in cellular phone networks to allow a number of different users to receive forward channel signals and then, in turn, transmit reverse channel signals using the same carrier frequency.

Applicant respectfully maintains that Oura is non-analogous art since a person of ordinary skill would not reasonably be expected to look to the field of mobile telephone systems for a solution to the problem of wireless repeating a digital data stream of packets at a rate of 11Mbps or greater. By way of example, Oura discloses that audio information is transmitted at data speeds of 384 kbps. (Column 4, lines 30-39) In contrast, Applicant discloses a wireless repeater transmitting data (e.g., video media content) at a data rate of 11Mbps or greater. Given the enormous difference in transmission rates and the completely different problems faced when transmitting video media content versus simple voice data, Applicant respectfully submits that a person or skill working in the field of wireless transmission of high-speed data (e.g., video at 11Mbps or greater) would not consider mobile phone communication systems to be within the same field of endeavor as the claimed subject matter.

Even if Oura were considered analogous art, Applicant respectfully submits that a person of ordinary skill would not have been motivated to modify or combine Lau with Oura. One reason why is because Lau explicitly teaches away from an approach in which wireless repeaters receive and transmit data during odd/even time

intervals. For instance, Lau disparages systems that utilize CSMA/CA techniques as well as TDMA services, wherein one transceiver communicates with another transceiver on a channel only when the channel is not already in use. (See column 2, line 25 through column 3 line 29) Lau explicitly points out that the disadvantages of CSMA/CA and TDMA techniques include a throughput limitation of 1 Mbps, a range limitation of less than typical household dimension, bandwidth inadequate for multimedia, limitations in the number of active devices, and wasted bandwidth.

By teaching a system and method that uses repeaters having multiple transceivers that transmit and receive simultaneously on different frequency channels, Lau teaches away from the approach taken by Applicant. A person of skill reading Lau would therefore have been discouraged from attempting the claimed subject matter. Such a skilled person would also have lacked any motivation to attempt to combine Lau with Oura since Lau specifically teaches that TDMA approaches are limited to a 1Mbps throughput, a rate that is adequate for a mobile phone system, but which is completely inadequate to transmit video data.

Applicant therefore respectfully submits that a person of ordinary skill, upon reading the Lau reference, would be discouraged from attempting to implement a network for transmission of data at 11Mbps or greater comprising wireless repeaters that transmit and receive data on the same frequency channel during odd/even time intervals.

It is also worth mentioning that persons of skill understand that time-division multiplexing (TDM) is very different than repeating of data packets over a wireless network in the manner defined in the subject claims. TDM is a type of digital or analog multiplexing which two or more channels or bit streams are transferred apparently simultaneously as sub-channels in one communication channel, but are physically taking turns on the channel. Applicant's claimed subject matter does not rely upon multiplexing multiple bit streams on sub-channels of a communication channel.

Rather, the subject claims define a counterintuitive approach of transmitting data in a single stream during odd/even time intervals at a high data rate. This approach is neither taught nor suggested by the TDM or TDMA-TDD schemes respectively disclosed in the combined teachings of Lau and Oura.

Furthermore, as Applicant's previously-submitted Declaration under Rule 132 attests, a person of ordinary skill in the art at the time of Applicant's invention would have understood that Lau's entire teachings are highly impractical and therefore unusable due to Lau's adjacent channel interference problem, which results from repeaters having transceivers that transmit and receive simultaneously on different frequency channels, and which ends up wasting valuable spectrum. Applicant's Declaration also explains that a person of ordinary skill in the art would not consider combining Oura with Lau because Oura's teaches a conventional audio communication technique (TDMA-TDD) communication method for transmitting and receiving between base stations and mobile phone stations that works by dividing a radio frequency into time slots and then allocating slots to multiple calls. But Lau points out that the disadvantages of CSMA/CA and TDMA techniques include a throughput limitation of 1 Mbps, a range limitation of less than typical household dimension, bandwidth inadequate for multimedia, limitations in the number of active devices, and wasted bandwidth. Since Oura only discloses a data transmission speed of 384 kbps, a rate that is far too slow for reliable wireless transmission of video media content at data rates of 11Mbps or greater, a person of ordinary skill in the art would have lacked motivation to combine or modify Lau in view of Oura in such a manner as to arrive at the claimed subject matter. Stated differently, given that Lau explicitly disparages approaches such as those taught by Oura, Applicant respectfully submits that a person of ordinary skill in the art would have lacked any reason to combine or modify these references in the manner suggested by the Examiner. Additionally, such an ordinary practitioner would have had no reasonable expectation of success at

achieving Applicant's claimed invention in view of the Examiner's combination of the teachings of the cited references.

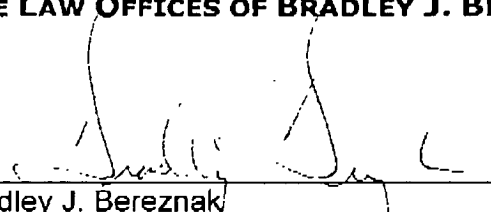
Applicant respectfully submits that for all the reasons given above that a person of ordinary skill in the art considering the cited prior art references at the time of Applicant's invention would have not been led to, or able to achieve, the subject matter of Applicant's amended claims.

Accordingly, Applicant respectfully requests that the rejections under 35 U.S.C. § 103(a) be withdrawn. Applicant respectfully submits that all remaining claims are now in condition for allowance.

Please charge any shortages of fees or credit any overcharges of fees to our Deposit Account No. 50-2060.

Respectfully submitted,
THE LAW OFFICES OF BRADLEY J. BEREZNAK

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